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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,069	03/19/2004	Gerrit L. Verschuur	90972.000023	7908

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EXAMINER

HESS, DANIEL A

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/805,069

Applicant(s)

VERSCHUUR ET AL.

Examiner

Daniel A. Hess

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36, 142 and 143 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36, 142 and 143 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/04: 3/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to 9/19/2005 election by the applicant.

Remarks

The examiner makes a number of rejections under 35 USC 112 and 35 USC 103 below. The examiner wishes to note, however, that much of the issue lies with the fact that the applicant uses vague terminology to describe the magnetic patterns, referring to a pattern that is 'effectively random' and that conductivity patterns vary according to different 'variables' and that these variables include 'variations.'

The notion of a pattern being 'effectively random' does not have meaning, except as it relates to the various coding steps and procedures that go into making it 'effectively random.' While the specification discusses various steps and procedures for achieving 'effectively random' codification, these are not extensively delineated in the claims.

Some notable aspects that the examiner finds in the specification include out of registration printing, the use of reference patterns, specific processing of the substrate prior to printing, and specific steps taken afterward. But it would not be enough simply to claim 'out of registration printing', 'reference patterns', 'pre-processing' or 'post-processing,' because phrases like this still do not make clear to the reader what is meant. It is improper to read the specification into the claims. What is 'out of registration printing'? What are these 'reference' markers and how do they work? What kind of 'pre-processing' will the substrate undergo to create variation in the pattern which will go upon it?

Note: Claims that have only a rejection under 35 USC 112, but no art rejection should not be considered simply allowable. In some cases, the claims are considered insufficiently clear for examination on the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-36, 142 and 143 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, each independent claim recites 'variability that is effectively random.' What is the meaning of 'effectively random'? Instead of claiming an 'effectively random' pattern, the applicant should could claim processes and structural aspects that produce the resulting pattern.

Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, it is not clear from the language of the claim what is meant by printing 'in registration' and 'out of registration.' In or out of registration with respect to what?

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Claims 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The expression 'free to vary over a continuum' is unclear.

Claim 7-8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The language of the claim is unclear: the claim states, "the conductivity patterns differ from the patterns of the conductive medium..."

It seems like the claim is essentially saying, 'X differs from X'.

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim recites 'variations' without defining what kind of variations. Are these variations in thickness, density, resistivity, type of material or what?

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite. It using the vague phrase 'effectively random.' See discussion above.

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Claim 10-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

The phrase ‘variations in both [a] *distributions of the conductive medium over a surface of the web* and [b] *distributions of conductivity within the surface distributions*’ appears to be redundant. The examiner cannot distinguish between [a] and [b] above.

Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite. See discussion re claims and 11 above.

Claim 29 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite. See discussion re claim 10 above.

Claims 31, 32 and 34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite. See discussion re claim 8, above.

Claim 35 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite. The meaning of ‘varies locally’ is unclear: What kind of treatment is there and what are the bounds of ‘locally’?

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims rejected under 35 U.S.C. 103(a) as being unpatentable over Verschuur et al. (US 6202929) in view of Asplund (WO 98/49652).

Re claim 1: Verschuur et al. teaches (See figure 6; column 2, line 55 to column 3, line 65) that barcodes or other patterns can be printed on a document with a conductive ink so as to discern particular information on the document. Clearly the patterns are designed to vary from one article to the next. As for an aspect of 'effectively random' patterning, this has already been addressed as being indefinite and will not be given patentable weight here.

Lacking in Verschuur is a teaching of webs.

Asplund shows (see figure 3 especially) that a document having different layers and the possibility of printing multiple articles, as Verschuur's does, can be formed through webs that come together.

In view of Asplund's teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known usage of a web structure for forming different printable articles having a conductivity patterns because webs can

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produce layered documents and multiple documents much more rapidly than production that can make only one document at a time.

Re claim 2: Clearly Verschuur intends that there should be variation from one document to the next, i.e. the patterns should not repeat. Why? Because the patterns encode specific information pertaining to a specific document.

Re claim 4: Verschuur describes (column 3, lines 15-20) reference points that serve as landmarks during detection / reading of conductive patterns.

Re claim 5: Clearly any conductivity pattern is a variation of conductivity characteristics across a surface.

Re claim 6: Indeed Verschuur uses (see abstract) conductivity patterns that are printed with differential inks.

Re claims 7-10: Clearly any conductivity pattern is a variation of conductivity characteristics across a surface.

Re claim 11: In Verschuur (column 2, lines 45-55), variations in the construction (which would include conductive layers) in a thickness (depth) dimension are described as affecting resulting measurements

Re claims 12-14: Protective outer layers, intermediate layers, and layers bound by adhesive, are common (see Asplund, figure 3 or alternatively a typical credit card, which shows various inner and protective layers.

The motive for such structure is to protect the strength and durability of an encoded document.

Re claim 15: See discussion re claims 10 and 11 above.

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Re claim 16: The claim doesn't specify what kind of 'further variation' takes place on the conductivity pattern after printing. This could simply mean accidental damage or breakage as a result of rough treatment.

Re claim 17: This could simply mean accidental damage or breakage as a result of rough treatment.

Re claim 18: The concept of 'over' has little meaning because when you flip the web over, then the conductivity pattern will be under the adhesive layer. So indeed, all that is actually being claimed is an adhesive layer and a conductivity pattern. As Asplund shows, adhesive is a common way to bring layers together.

Re claim 20: See Asplund / figure 3: The bringing together of different layers by multiple webs is shown, with critical components located between the webs, and lamination.

In view of Asplund's teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known webs coming together in the manner claimed because this produces a finished product very rapidly.

Re claims 21 and 22: See figures 1a and 1b of Verschuur: It is shown that different conductive portions are overtop of one another and thus must be in different levels or layers, which, in a webs method of manufacture, would come from different webs.

Re claim 23: See discussion re claim 1, above.

Re claim 24: Verschuur employs capacitances, which by nature requires discontinuous conductive areas (since continuous conductivity would produce a short-circuit across the capacitive gap).

Re claim 25: See discussion re claim 4, above.

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Re claim 26: See discussion re claim 5, above.

Re claim 27: See discussion re claim 6, above.

Re claims 28 and 29: See discussion re claims 7-10, above.

Re claim 30: See discussion re claim 11, above.

Re claim 34: See discussion re claim 16, above.

Re claim 36: See discussion re claims 16 and 17, above.

Allowable Subject Matter

Claims 19, 142 and 143 remain rejected under 35 USC 112. However, they might be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, after the various rejections under 112 would overcome.

The limitations recited in claim 19 (claim 142 is similar) are neither taught nor fairly suggested.

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Claim 33 remains rejected under 35 USC 112. However, it might be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, after the various rejections under 112 would overcome.

The limitations, "advance treatment affects at least one of porosity and surface morphology" as recited in claim 33 are neither taught nor fairly suggested.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel A. Hess whose telephone number is (571) 272-2392. The examiner can normally be reached on 8:00 AM - 5:00 PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DH
10/14/2005



DANIEL STOYR
PRIMARY EXAMINER